

I later used a simple device in the place of a stone or coin. A length of thin steel strip was bent in the middle to form a narrow horseshoe, and an elastic band was put round both sides of the strip in the middle to act as spring and exert pressure. Two small cardboard pieces were fixed to both ends of the bent strip to cover more surface area. This device was used on House Sparrow and it rendered the bird inactive. Thus this simple device can be used effectively instead of stones and coins.

41, PANCHWATI,
UDAIPUR - 313 001,
RAJASTHAN,
January 28, 1985.

This technique may thus be effective on most birds and it would be of immense help to ornithologists for the study of birds and their banding, without causing the birds any inconvenience. It causes a hypotonic effect but I am unable to explain it satisfactorily. Both the above eminent ornithologists were also puzzled and were unable to explain this phenomenon.

RAZA H. TEHSIN

25. FRESHWATER TURTLE *LISSEMYS PUNCTATA* (FAMILY TRIONYCHIDAE) WITH MISSING LIMBS IN KEOLADEO NATIONAL PARK, BHARATPUR, RAJASTHAN

Freshwater turtles, of which *Lissemys punctata* is the most abundant, form the major reptilian fauna of Keoladeo National Park.

The Park dried up almost completely during the summers of 1985 and 1987. Terrestrial movements of *Lissemys punctata* were common during this period, although they suffered heavy mortality in the process.

Some of the turtles had their limbs missing; four had no right hind limb, while two had both their hind limbs missing and one with right hind limb and left hind limb toes missing. The terrestrial movements of these turtles were quite peculiar and slow. The turtle with one missing hind limb moved by lifting the whole posterior part of the body with the left hind leg. But the turtle with both the missing limbs had to drag the posterior part of the body over the substratum. Their movement was very restricted and hence they were trapped

even in small ditches and were struggling to come out. These turtles were highly sensitive and, at the slightest disturbance, they withdrew their head and limbs. During their movement on land, the flaps of the hind limbs, where the limbs were missing were opened and closed simultaneously with the movement of the other flaps and, when disturbed these flaps were also held tightly. The movement of these turtles in water was almost normal and they could move easily with their forelimbs. One of the possible reasons for the missing limbs is the attempted predation by Scavenger vulture (*Neophron percnopterus*) and King vulture (*Torgos calvus*). During April, 1987 about 27 Scavenger vultures were observed at one place, killing and feeding on the turtles inside the Park.

Lissemys punctata are remarkably well adapted among soft-shelled turtles in being

able to protect themselves from predation. Though these turtles can close their shell, the weakest part is apparently the hind limb flaps (Auffenberg 1981) and the bill of the scavenger vulture is very narrow, long and is easily inserted into the narrow, slit-like aperture of the flaps over the hind limbs, tearing off their flesh. No longer able to move, even if offered an opportunity to do so, the turtle slowly dies, (Auffenberg 1981). In the present observations, as the hind limbs were missing, the possible reasons for this might be the attempts of pre-

dators, and during this process, the predator must have left the turtle owing to some disturbance and if so, probably the first part attacked by the predator was the right hind limb.

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GEORGE M. JOHN

BNHS ECOLOGICAL RESEARCH CENTRE,
331, RAJENDRA NAGAR,
BHARATPUR-321 001, RAJASTHAN,
May 22, 1987.

REFERENCE

- AUFFENBERG, W. (1981): Behaviour of *Lissemys punctata* (Reptilia: Testudinata: Trionychidae) in a drying lake in Rajasthan, India. *J. Bombay nat. Hist. Soc.* 78: 487-493.

26. FAT-TAILED GECKO (*EUBLEPHARIS MACULARIUS* BLYTH) CAPTURED FROM A QUARRY

On 1.v.1984 one adult fat-tailed gecko (*Eublepharis macularius* Blyth) was captured by a quarry-man after blasting in the quarry at 1600 hrs. at village Tatarpur (27° 47' N; 76° 31' E) in Alwar District. He tied the gecko to a branch of *Leptadenia spartium* and brought it to me at the Forest Nursery at Tatarpur to identify the animal. Actually he wanted to know whether it was poisonous.

I readily recognized it from its attractive coloration. It produced a squeaky mechanical

noise by sudden sideways jerks of the head.

After its identification, I released the animal in our forest area. Then I went to the quarry and bagged two more adult individuals from the same old deep quarry.

The area is hilly with sparse vegetation of *Adhatoda vasica*, *Rhus mysurensis* etc. Earlier, a dense deciduous type of forest was present here but at present there are only denuded hills.

FOREST EXTENSION OFFICER,
VAN CHETNA KENDRA,
GULAB BAGH,
UDAIPUR-313 001,
RAJASTHAN,
September 10, 1987.

SATISH KUMAR SHARMA